

ABSTRACT OF THE DISCLOSURE

In a method of manufacturing a semiconductor device of the invention, a substrate insulating film 102 is formed on a semiconductor substrate 100, a barrier layer 104 is formed on the substrate insulating film, an Al-Cu interconnection layer 106 is formed on the barrier layer by sputtering under a condition that the nitrogen concentration in the atmosphere in the sputtering deposition chamber is higher than 12ppm but lower than 1000ppm, and then an anti-reflective film 108 is formed on the Al-Cu interconnection layer.